

## EREMOPHILA STUDY GROUP NEWSLETTER NO. 28 DECEMBER 1983

We have reached the time of the year when we can get out in the garden and do the things we want to do. Sadly, some plants will have been lost over the winter months, but happily others have been stimulated into new growth. Many of my plants have reached a mature age, the oldest being planted in 1969, and are well past their best as garden specimens. For those with plenty of room the solution is easy, plant another specimen somewhere else. For the suburban gardener, it is a difficult thing to establish a new plant with many mature plants close by. With this fact in mind I decided to lop off the straggly limbs on some of the older plants. Those that survived are now shooting away from the base: E. drummondii, E. divaricata, E. glabra (2), E. hillii, E. laanii, and E. maculata (2). There are no uncommon plants in this list but all were rather exciting in those early days. If new plantings are necessary I find it best to grow the new plant on in a larger pot before attempting to plant out, and even then some extra attention is needed.

G.N.

## EREMOPHILAS IN TASMANIA

Norma Ali

I decided it was high time I gave you a progress report on my eremophilas. The five species listed below were all planted in a sand patch, during December 1981, but roots would be well through to the mudstone below by now:

Eremophila microtheca: Flowers continually and now 0.9 m high X 0.8 m wide.

Eremophila glabra (yellow/orange form): Now 0.8 m X 1 m, and always seems to have a few flowers on it.

Eremophila drummondii: Now 1.8 m X 2 m. Some leaves die off.

Eremophila laanii (pale pink form): Now 0.7 m X 0.9 m. A few odd leaves die off and there is an occasional attack by aphids, but otherwise it is healthy.

Eremophila serpens: Does not seem to stop growing. Now 1.2 m diameter. It always has the odd flower on it and it is very healthy.

All plants mentioned above receive full sun until about 3 p.m., at this time of the year (July). The bed is mulched with blue metal and only watered by hand when the soil feels dry. All have responded extremely well.

The following species have been planted directly into the mudstone and receive about the same amount of sun as the other species:

Eremophila gibbifolia: Planted in 1978. Now 0.8 m high X 1 m wide and is very healthy and always has some flowers.

Eremophila decipiens: Planted 1978. I find this needs to be continually pruned to keep a healthy appearance as it suffers die-back on some tips. Always has some flowers.

Eremophila maculata: Two forms of this species were planted, but are much slower in growth, although improving.

Eremophila denticulata: Planted in 1980 on a steep mudstone bank. It is very healthy.

All these species were watered with a dripper system approximately every ten days during the last summer, and, with the exception of E. denticulata, were mulched with sawdust.



## GROWING EREMOPHILAS IN A 600 mm RAINFALL AREA

Reg and Flora Mason

In October 1974 we purchased Hillfoot Farm of 13 hectares, 1.6 km west of Strathalbyn. The farm occurs on alkaline to neutral soils over blue rock. We started clearing horehound and three-cornered jacks in preparation for planting a native garden which commenced at Easter 1975. In 1977 a bore was sunk to 96 m and 2000 litres an hour was pumped from 30 m. The water contains 50 grains of salt per litre but most of the natives accept it providing we do not use sprinklers. At present 2 hectares have been planted, of which eremophilas form three small patches.

The elevation is just on or above the frost line and we have had few losses from frost although E. viscida showed signs of damage this year on fresh growth.

Regeneration from seed of eucalypts, acacias, cassias, hardenbergiyas, helichrysums, hibertias, etc., has been fairly common but as yet not one eremophila has been found.

Eremophila is one genus that we can grow successfully and over the eight years we have been planting, losses of established plants have been relatively low. Casualties include: E. santalina (at 2 years), E. christophorii (3 years), E. scoparia (4 years), E. latrobei (4 years), E. alternifolia (4 years), E. pustulata (2 years), E. gibsonii and E. willsii (1 year).

At present, E. elderi, E. bowmanii, E. pterocarpa, E. "labrosa", E. leucophylla, E. linsmithii, E. tetraptera, and E. abietina "subsp. ciliata", are just surviving.

The ground covers thrive: E. serpens 4.5 m wide, E. biserrata (two forms), 2.5 and 2 m wide, E. glabra (ex Roseworthy) 2.5 m, E. "subteretifolia" 2.5 m, E. glabra (metallica) 1.5 m, E. glabra (silver leaf, lemon flower) 3 m, E. glabra (yellow flower) 4 m, and E. glabra (ex Arno Bay) 1.5 m.

Procumbent forms of species: E. glabra "Murrayana" 0.45 high x 2 m wide, E. glabra (ex Rottneest Island) 0.5 m high x 2.5 m wide, E. maculata (red) 0.6 m x 4.5 m, and E. macdonnelli 0.4 m x 2.1 m.

Small plants suitable for rockeries: E. chamaephila, E. merrallii, E. veronica, E. hillii (3 forms), E. delisseri, E. behriana, and E. "verticillata".

Small shrubs up to 1 m: E. "barbata", E. weldii, E. maculata var. brevifolia, E. subfloccosa, E. densifolia, E. gilesii, E. goodwinii, E. macdonnellii (ex Simpson Desert), E. divaricata, E. drummondii (3 forms), E. platycalyx, E. polyclada, E. "gracilis", E. lehmanniana, E. lehmanniana var. "dentata", E. decipiens, E. freelingii, E. microtheca and E. crassifolia.

Shrubs 1 m to 2 m: E. latrobei, E. purpurascens, E. eriocalyx, E. dempsteri, E. duttonii, E. racemosa, E. ionantha, E. interstans, E. pantonii, E. "nivea", E. gibbosa, E. serrulata, E. maculata (yellow flowers, red spotted), E. brevifolia, E. inflata, E. viscida, E. psilocalyx, E. "rostrata", E. sargentii, E. laanii (pink), E. rotundifolia, E. glabra (E. "carnosa"), E. glabra (E. "tomentosa") and other forms of E. glabra.

Those growing over 2 m: E. bignoniiflora, E. alternifolia (2 forms), E. longifolia (2 forms, green and grey leaves), E. laanii (white), E. saligna, E. youngii, E. calorhabdos, E. denticulata (grew to 4.5 m high X 3.5 m wide in 4 years), E. glabra (Eyre Peninsula form), E. dichroantha, E. oppositifolia, E. sturtii.

During this year we have planted E. willsii, E. gibbifolia (2), E. resinosa (2), E. battii, E. scoparia, E. oppositifolia (W.A. form) (white), E. obovata var. glabriuscula, E. mackinlayi, E. caerulea, E. pustulata, E. macdonnellii, E. psilocalyx, E. platycalyx, E. dempsteri, E. microtheca, E. alternifolia (white), and E. georgei (2).



In May we spent three weeks in the Kings Canyon area (N.T.) and have succeeded in propagating three different leaf forms of E. latrobei, several E. gilesii, a narrow leaf form of E. duttonii and we have one good thriving plant of E. ovata thanks to advice of its location from botanist Peter Latz of N.T. Conservation Commission at Alice Springs.

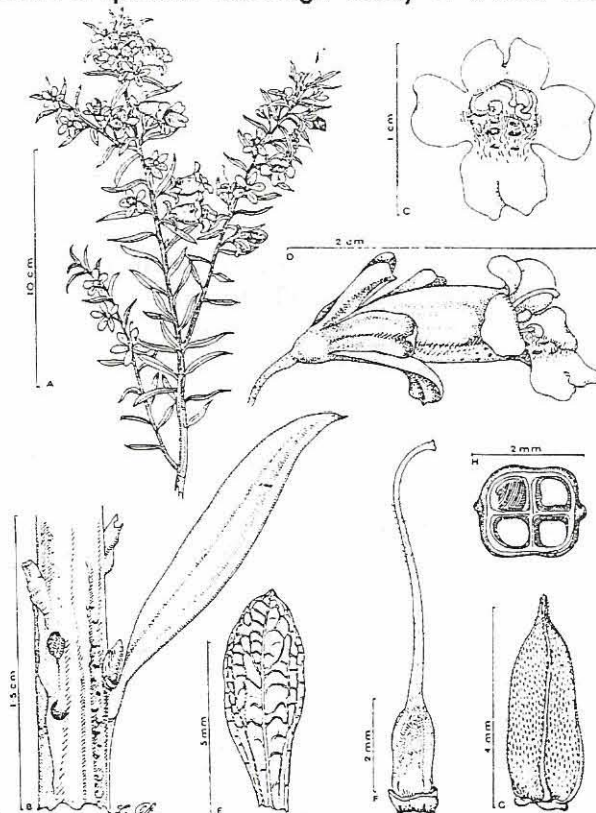
### A NAME CHANGE IN EREMOPHILA

Bob Chinnock

I am sure many of you have wondered at times why botanists frequently change names. You might have known a plant by one name for many years and then find it has been changed. The reasons for name changes are many but a common one is the finding of earlier names and the following is a good example of this.

Eremophila pachyphylla was described by L. Diels in 1905 from material he collected on a trip to Western Australia. The species is well known and is common in the Norseman area. However recently when I was working on Eremophila dempsteri I found that 30 years before Diels came to Australia Ferdinand Mueller had actually described it as E. psilocalyx. The name E. psilocalyx was overlooked in the original "Index Kewensis" but it was recently included in the latest Supplement (No. 16) of this work.

Mueller described E. psilocalyx in a discussion on E. dempsteri which he had also just described. Like E. dempsteri, E. psilocalyx was based on material collected by Dempster between Frasers Range and Esperance Bay. A translation of Mueller's account of his description of this species is as follows: "Dempster's collection offered to us, from the same place as the other, very closely related, variety or species, has leaves flat, narrow lanceolate, nearly an inch long, sepals entirely glabrous, 3-4 times longitudinally measured, corolla exterior glabrous, interior intensely bearded, style obviously pilose. This plant with mature fruits I am considering further, the specific name E. psilocalyx can be designated." At this period such an account was quite sufficient to validly publish a species although today it would not.



Eremophila psilocalyx

A, habit; B, enlargement of branch and leaf; C, front view of corolla; D, side view of flower; E, sepal; F, gynoecium; G-H, front view and cross-section of fruit.

## EREMOPHILA STUDY GROUP NEWSLETTER NO. 28 SUPPLEMENT

Current List of Eremophila species as at December 1983

Bob Chinnock

It was suggested to me recently that I provide a list of current Eremophila species that I recognise. In providing this list it must be realised that as my research continues it is inevitable that changes will occur. No manuscript names (unpublished species) are included even though some of these names are now widely used, e.g. E. "nivea". Distributions for each species are also provided. This list consists of 118 species but at least another 50 species await description.

<i>E. abietina</i>	WA
<i>E. adenotricha</i>	WA
<i>E. alatisepala</i>	Q
<i>E. alternifolia</i>	WA, NT, SA, Q, NSW, VIC

*E. angustifolia* = *E. oldfieldii*

<i>E. arachnoides</i>	WA, SA
<i>E. battii</i>	WA, NT, SA
<i>E. behriana</i>	SA

*E. bicolor* = *E. racemosa*

<i>E. bignoniiflora</i>	WA, NT, SA, Q, NSW, VIC
<i>E. biserrata</i>	WA
<i>E. bowmanii</i>	Q, NSW
<i>E. brevifolia</i>	WA
<i>E. caerulea</i>	WA
<i>E. calorhabdos</i>	WA

*E. calycina* = *E. neglecta*

<i>E. chamaephila</i>	WA
<i>E. christophorii</i>	NT
<i>E. clarkei</i>	WA, SA
<i>E. compacta</i>	WA
<i>E. cordatisepala</i>	NT, Q
<i>E. crassifolia</i>	SA, VIC
<i>E. cuneifolia</i>	WA
<i>E. dalyana</i>	Q, SA
<i>E. decipiens</i>	WA, SA
<i>E. delisseri</i>	WA, SA
<i>E. dempsteri</i>	WA
<i>E. densifolia</i>	WA
<i>E. denticulata</i>	WA
<i>E. dichroantha</i>	WA

E. dielsiana = E. platycalyx

E. divaricata	SA, NSW, VIC
E. drummondii	WA
E. duttonii	WA, NT, SA, NSW
E. elachantha	WA
E. elderi	WA, NT, SA, Q
E. eriocalyx	WA
E. exilifolia	WA

E. exotrachys = E. platythamnos

E. falcata	WA
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E. foliosissima = E. gilesii ssp.

E. forrestii	WA
E. fraseri	WA
E. freelingii	WA, NT, SA, Q, NSW

E. georgei = E. clarkei

E. gibbifolia	SA, VIC
E. gibbosa	WA
E. gibsonii	WA, NT, SA
E. gilesii	WA, NT, SA, Q, NSW
E. glabra	WA, NT, SA, Q, NSW, VIC
E. glutinosa	WA
E. goodwinii	NT, SA, Q, NSW
E. graciliflora	WA
E. granitica	WA

E. hastieana = E. leucophylla ssp.

E. hillii	WA, SA
E. homoplastica	WA
E. hughesii	WA, NT
E. imbricata	WA
E. inflata	WA
E. interstans	WA, SA
E. ionantha	WA

E. kochii = E. resinosaE. kraenzlinii = E. glabra

E. laanii	WA
E. lachnocalyx	WA

<i>E. latrobei</i>	WA, NT, SA, Q, NSW
<i>E. lehmanniana</i>	WA
<i>E. leucophylla</i>	WA, NT, SA
<i>E. linearis</i>	WA
<i>E. linsmithii</i>	Q
<i>E. longifolia</i>	WA, NT, SA, Q, NSW, VIC
<i>E. macdonnellii</i>	NT, SA, Q
<i>E. macgillivrayi</i>	Q, SA, ?NSW
<i>E. mackinlayi</i>	WA
<i>E. macmillaniana</i>	WA
<i>E. maculata</i>	WA, NT, SA, Q, NSW, VIC
<i>E. maitlandii</i>	WA
<i>E. margarethae</i>	WA
<u><i>E. merrallii</i></u> = <i>E. caerulea</i> ssp.	
<i>E. metallicorum</i>	WA
<i>E. microtheca</i>	WA
<i>E. miniata</i>	WA
<i>E. mitchellii</i>	Q, NSW
<i>E. muelleriana</i>	WA
<i>E. neglecta</i>	NT, SA
<i>E. obovata</i>	WA, NT, SA, Q
<i>E. oldfieldii</i>	WA
<i>E. oppositifolia</i>	WA, NT, SA, Q, NSW, VIC
<i>E. ovata</i>	NT
<u><i>E. pachyphylla</i></u> = <i>E. psilocalyx</i>	
<i>E. paisleyi</i>	WA, NT, SA
<i>E. pantonii</i>	WA
<i>E. parvifolia</i>	WA, SA
<i>E. pentaptera</i>	SA
<i>E. phillipsii</i>	WA
<i>E. platycalyx</i>	WA
<i>E. platythamnus</i>	WA, NT, SA
<i>E. polyclada</i>	NT, SA, Q, NSW, VIC
<i>E. psilocalyx</i>	WA
<i>E. pterocarpa</i>	WA
<i>E. punctata</i>	WA
<i>E. punicea</i>	WA
<i>E. purpurascens</i>	WA
<i>E. pustulata</i>	WA



<i>E. racemosa</i>	WA
<i>E. ramiflora</i>	WA
<i>E. resinosa</i>	WA
<i>E. rotundifolia</i>	WA, SA
<i>E. saligna</i>	WA
<i>E. santalina</i>	SA
<i>E. sargentii</i>	WA
<i>E. scaberula</i>	WA
<i>E. scoparia</i>	WA, SA, NSW, VIC
<i>E. serpens</i>	WA
<i>E. serrulata</i>	WA, NT, SA, NSW
<i>E. spathulata</i>	WA
<i>E. spectabilis</i>	WA
<i>E. spinescens</i>	WA
<i>E. strongylophylla</i>	WA
<i>E. sturtii</i>	NT, SA, Q, NSW, VIC
<i>E. subfloccosa</i>	WA, SA
<i>E. ternifolia</i>	WA
<i>E. tetraptera</i>	Q
<u><i>E. turtonii</i></u> = <i>E. leucophylla</i>	
<i>E. undulata</i>	WA
<i>E. veronica</i>	WA
<i>E. verrucosa</i>	SA
<i>E. virens</i>	WA
<u><i>E. virgata</i></u> = <i>E. interstans</i> ssp.	
<i>E. viscida</i>	WA
<u><i>E. websteri</i></u> = <i>E. clarkei</i>	
<i>E. weldii</i>	WA, S.A.
<i>E. willsii</i>	WA, NT, SA
<u><i>E. woollsiana</i></u> = <i>E. lehmanniana</i>	
<u><i>E. xanthotricha</i></u> = <i>E. leucophylla</i>	
<i>E. youngii</i>	WA, NT